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VOL. LI

FALL, 1956.

NO. 1

Let the farmer for evermore be honored in his calling, for they who labor in the earth are the chosen people of God.

Thomas Jefferson

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ON THE COVER - Picture of Administration Building, National Agricultural College - Supplied by Lippencott Realtors



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SEGREGATION

One Man's Opinion

by Gil Finkel '57

It is perhaps impossible to argue logically against segregation and at the same time convince your opponent that you are right. The reason is simple: segregation is itself illogical. The White Supremicists of the South, and the more quiet but no less damaging bigot of the North hold no specific claim against the Negro person, but against the Negro people. They don't riot when Autherine Lucy attends school, but when any Negro attends school. The reason seems fairly obvious; the Negro is being used as a scapegoat. He is more easily recognized than the Jew or the Catholic, and the Indian is almost non-existant, after being deprived of lands and home by our illustrious fore-bears.

Talk integration, and they bark back intermarriage.

Intermarriage! Talk of integrating a playground, or a coffee shop, or a bus, or a railway station, and they talk intermarriage, and "Mongrelization of the Races, both Black and White". This I label a pseudo-intellectual argument, mouthed by people trying to rationalize their poor behavior.

These people are just plain scared. Being afraid is nothing new, and neither is intolerence. The Pilgrims came here for just that reason, and once here, were intolerent themselves for fear they would again be evicted. This cycle is just as old; it was repeated by the Negro in the South.

The first slaves indentured to the Conquistadores were laid with such heavy debt that they could hardly hope to repay it. A few, of course, did, and they paved their road to wealth with the purchased bodies of other less fortunate souls, Bigotry had nothing to do with the slave trade; it was a matter of economics. To be sure, it is still perhaps for economic reasons that we keep the Negro subjugated. He may either work for a cheaper wage, or not work, and in our society, not eat.

To my mind this situation is a

The first important step in solving any problem, is to admit the problem exists. Second class citizenship isn't a problem to most white Southerners, and that would seem to be the reason they can't solve it. The situation, once faced can be removed.

If, as I have stated, it exists because of a fear, the fear must be alleviated. This is the crux of the situation, for the fear involved here is an unreasonable one - one that cannot be lessened by citing facts and displaying figures. This is a deepseated thing that developed over a period of several centuries, and one that cannot be unseated in the short space of ten or twenty years, Neither can it be destroyed by passing laws against it, though if used properly, the Law can, and will help.

The Negro is losing patience, He now enjoys the greatest amount of freedom he ever had, and understandably, he is more anxious than ever to enjoy the same advantages as his white brother. Now is precisely the wrong time to lose patience. Now is the time for the Church to do the job it was designed to do: promote brotherhood. The schools may be desegregated, but men can only be integrated by common belief.

First the Church, then the bus terminal.

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COLLEGE ? ?

Some night after supper, have you ever felt so depressed that you began asking yourself "What am I going to college for? Is it to learn proper feed rations, or to discover why certain milk won't form a cream layer?" No, in the final analysis the technical knowledge gained isn't the final rewardfrom college. The years spent in this institution should bring the student to a better understanding and handling of the problems that may confront him in his business, as well as private world.

Let us look and try to visualize for a moment the rewards a college education offers us. An education makes the individual mentally mature and alert. The different problems that arise in courses like chemistry, math, biology, physics, etc., only foreshadow the obstacles that will arise for the student when he leaves school. College gives the student a chance to reason out problems that may confront him with no very serious consequences should he make an error. In the business world a similar mistake could cost the individual his job, or involve the loss of great amounts of money, It is far better to make mistakes in college. than to wait till one is launched on a career.

Another important feature about college is that it creates in the individual a keen sense of curiosity. It is curiosity that has led men to many great discoveries. This prying, and "wanting to know" leads the student to be resourceful. Learning to be clever can't be achieved over-

night.

College also prepares the individual for leadership, whether it be in the business, military, or any other world. The campus clubs, with their various offices, requirind daily association with fellow students, give the individual a sense of responsibility and leadership. From the head of the little clique at one end of the hall, to the president of one's class, this sense of leadership is developed.

However, attributes such as mentioned are not the only things that are developed in the college student. The social life that definitely goes along with college life is an important and essential thing. Whether it is in a friends room, at the class dance, or the senior prom, the student learns to handle himself in society, to converse effectively with other people, and to conduct himself in a manner suited to a gentleman.

To sum up, technical knowledge received in one's major field is important, but should not represent the sole reward from undergraduate work.

Welcome Class of '60

As the song "Autumn Leaves" is sung with a seasonal touch throughout these United States, young men from all parts of the country and world will be returning to college to continue their undergraduate or postgraduate work. A part of this scene is NAC, with its archway at the head of the campus that represents a gateway to many young men entering college for the first time. To these men the Gleaner, along with the faculty and student body at NAC, wishes a happy, fruitful, and industrious four years in college.

May your stay at NAC be one in which you gain the knowledge that attracted you to this college, and also learn to understand, and consequently live better with, your fellow man. We believe that you will accomplish these aims and that you will become a person of whom NAC can be proud, Good luck!

VIEWS

THE FLIGHT OF THE



Apis melliferia

by Paul Leopard ' 57

Beekeeping has been called "the poetry of agriculture," because of the little effort displayed on the part of the bee raiser in increasing his yearly income. Not only does the bee aid in pollination to the fruit farmer, but also produces honey and bees wax which is bringing an all time high this year.

The Department of Agriculture in Pennsylvania has a definite interest in beekeeping in the state. In fact, to such an extent, that bee inspectors are employed by the state department of agriculture to inspect all known apiaries in the state against diseases.

After spending the previous summer as such an inspector in York County, Pa., I agree with NAC'S Mr. Schmeider who made the statement that apiculture is the poetry of agriculture. Even though there is little actual work in running a satisfactory apiary as compared to other farm enterprises, many of the apiaries that were inspected were in poor condition. It seemed as though some of the apiaries were not looked at since the last state inspection which in some instances was made two years ago.

The location of the apiary is important. An apiary, or a place where bees are raised and kept, may be located on waste lands or land of little importance for the purpose of cultivation. The apiary should be located rather near to the honey house, since honey is heavy and hauling it up or down a hill would tend to decrease the beekeepers interest. A good road is also necessary, since many trips are made to the apiary during the year in all kinds of weather.

Bees are much easier to handle if they are located in an area where they receive a maximum amount of sunlight. This is especially important in the winter, since the sun heating the colony will keep the bees active

A good example of a poor location was recently found in Spring Garden Township in York County. The apiary was situated by a stream at the bottom of a small incline. The surrounding area was completely wooded so as to cast a heavy shadow on the colonies at all times. As you can imagine, this area was continually moist, and making the proper inspection was especially difficult.

Two important requirements are dry ground and good air drainage which keeps the air dry so the bees can ripen the honey properly, and winter more successfully. The apiary should not be located in woods or in a damp bottom land, since the excess moisture retards the flight of the bees and encourages the development of such bee diseases as nosema and European foulbrood.

The apiary is best situated where there is a natural wind protection such as hills, buildings, or vegetation. The need for wind protection is greatest during February, March, April and May. During these months the colonies are the weakest and the winds are most severe.

Natural wind protection is preferred over artificial protection. Several rows of evergreens make an ideal windbreak when they are placed fifteen feet from the apiary.

Artificial windbreaks can be constructed from many kinds of material, such as seven to nine foot picket fences,

The hives should be placed di-

rectly on the ground, but should be placed high enough off the ground to keep the bottom of the hives dry. They may be placed on bricks, wooden hive stands, stones, concrete blocks, or other home-made inventions. It is best to have not more than two colonies in one stand since jarring of one colony will irritate the neighboring colony and make them more difficult to work.

The State Apiary Inspection is made mainly for the prevention and spread of disease. The worst of these diseases are American Foulbrood and European Foulbrood. A detailed account of these diseases will be presented after the proper time. Beekeepers should be on the alert for diseases whenever a hive is opened, and should not depend entirely on state inspection to control infectious bee diseases.

Inspections should be made (1) when the hives are first opened in the spring; (2) when putting on supers prior to the honey flow; (3) after the honey is taken off; (4) when the hives are prepared for the winter.

In order that inspection can be made the brood chamber must be able to be removed from the colony. Hives in which the brood chamber cannot be removed for state inspection are illegal in the State of Pennsylvania.

By carefully watching for certain brood characteristics, a beeinspec-

(continued on page 20)

LETHAL GENES IN CATTLE

by Bert Brawley '58

What exactly is this business of lethal genes in cattle?

Of what importance is this topic of lethal genes to us as agricultural students? The majority of us know little or nothing about cattle, so why the big interest in this subject?

The answer is that "lethal" means "death-dealing", and that it has been reported by the United States Department of Agriculture that the money lost in cattle due to these genes amounts to millions of dollars each year.

This death of cattle and calves results when a pair of genes, united after mating, produce a condition which in turn causes the aborting of a developing embryo, still-birth of a fully-developed calf, or live birth of a deformed calf.

A question that arises is why are no more cases of Bull Headedness, as it is called, reported? There are several reasons for this. First being that those cases which do arise are usually kept quiet by the farmers owning the animals; it is bad publicity for a farmer to have everyone know his stock may produce in-



Calf showing lower Jaw bone deficiency. USDA Photo

ferior or dead calves. The second reason is that not all the animals which carry a lethal gene mate with other animals carrying a similar gene. If, however, the two similar genes do not come in contact upon mating, the one gene will pass on to the calf in the form in which it was

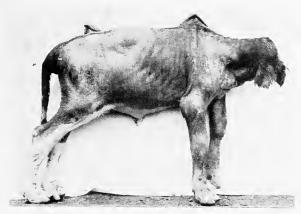
in the parent - that is a recessive gene.

It is believed by geneticists and by breading men alike that there are twelve groups of genes transmitted during mating of cattle. These genes contain what is known as chromosones. It is this material that gives the calves their twelve basic characteristics: sex, multiple birth, regular breeding, lethals, body type, color, blood type, disease resistance, growth, production, efficient feed use, and longevity.

It is the lethals in which we are interested. When these genes combine, they cause many different and strange deformities. Many calves are born with no lower jaw, brain hernia, water on the brain, no legs, missing bones, fused nostrils, closed anus, and no hair. The most common malformity caused by these genes is the Bull Dog Calf. This malformity was first noticed in Germany about 1860 and was not identified with the genes until 1890.

A description of a Bull Dog Calf generally follows the same pattern: the face is short and dished, with a

(continued on page 8)



Eight month old calf with no head taken from cow at slaughter house.

USDA Photo

STUDENTS FROM OTHER LANDS

by Lew Seidenberg '57

As every college grows, it is fortunate to number among its students men of many States, and also of foreign countries. The National Agricultural College is no exception. Men have come here recently from Germany, Columbia, Korea, Venezuela, among others. Their stories of other lands and customs, and their own personalities create on our campus better understanding of other nations and peoples.

To the readers of the Gleaner we should like to introduce one of these welcome additions to the Aggie's

student body.

Coming from Tehran, the capitol of Iran (formerly Persia), Davoud Kharrazi is a good example. His humor and wit make him quite popular among his classmates and on the campus.

Dave was not originally interested in agriculture, coming from a developed area of the country where agriculture doesn't play a major role. He went to the regular schools in Tehran completing nine grades. He then decided he would like to come to America. It was not a will-o-thewisp decision to come to this country, for his brother had been here, and Dave had heard much about the United States, and felt that he would like to study here.

It was in December, 1953, that Dave came to the United States, and he continued his schooling at the Lakemont Academy, Lakemont, N. Y., where he graduated, thus completing the equivalent of high school. Always having had an interest in Nature, in animals and plants, Dave decided that some kind of work in Agriculture would most likely be



best for him.

This brought him to the National Agricultural College. Here Dave is majoring in Food Industry and will also have the chance to take electives in Horticulture. He feels that Food Industry will give him the widest knowledge he can use in his later life.

About his choice of a college Dave is quite happy. He feels that a small college has more things to offer him than a larger one. It gives him a chance to meet and really know most of the students; he feels that at a small college there is a more general feeling of friendliness, and life is not so much on an impersonal basis as it would be at a large school.

His future plans are more or less definite. As Dave puts it: "After completing my course in Food Industry, I am planning to return to my country and if I can, with the help of my family, establish an independent company in one of the lines of Food Industry and try to expand the company as to give the best possible help to my people."

It is such men as Davoud Kharrazi from Iran, and other foreigners whom we will characterize in further issues of the Gleaner, who help us to understand our fellow men all over the world

LETHEL GENES

(continued from page 7)

short upper jaw; the legs are very short; and the palate is cleft, It is not difficult to see why the animal is born dead,

Is the birth of such animals necessary, and can the havoc of lethal genes be stopped? That is a question which the Department of Agriculture men in Washington are trying to answer. Among several suggestions, they make one that can, and is being carried out by the most progressive breeders. If a cow bears a calf that is deformed, the farmer should get rid of both her and the bull, if it is on his farm; he should do this not by selling them in a local auction,

by sending them to the butcher. In that way he knows that he can stop the spread of those genes in his herd. The offspring of these animals should be gotten rid of also, because they carry the recessive gene for lethalism. It is always hard to make a clean sweep of one's stock, but surely "An ounce of prevention is worth a pound of cure".

HONOR AGGIES

by Larry Fritts '57
Paul Leopard '57

Hey Walt! How 'bout drawing some posters for the dance, If you'd be sitting in Walt's room a week before the Class Dance, "A" Day or any other college activity, I know you'd hear these words asked this months Honor Aggie, Walt Kendaierski.

Without a doubt in your mind, you know that Walt is handy with a pen and paper. If there isn't any college activity to advertise Walt's talent, take a look at his notes. Walt is one of the few people that has the double ability of not only being able to take word for word notes, but also sketch perfect images of the profs. Some of his classic examples along this line are Dr. Elson, Mr. Purmell and Mr. Keys. The drawing



of Mr. Keys was considered so outstanding by the boys in Ulman Hall, that it hung on the bulletin board for three days.

Continue gazing around Walt's room, and the books on Walt's shelf will tell you that he's a Horticulture major. In his junior year, Walt was an alternate on the College Judging team. During the winter, take a look

at the window sill in room 23 in the new dorm and you'll know that Walt has a special interest in entomology. If the season is mid-winter, you'll find the bag worm competing as Walt's roommate. (No offense, Paul!) In his sophomore year, Walt attained the highest class average in entomology, and later on in the spring of the same year, Walt's entomology exhibit was judged reserve grand champion in the college "A" Day program. Last "A" Day, Walt explained some interesting facts concerning entomology to 30,000 viewers over WRCV - TV.

Many important college organizations claim Walt as a member. During his four years of college, Walt has been a member of the college Horticultural Society, serving as treasurer his sophomore year. Being a member of the varsity basketball and baseball teams, the varsity club claims Walt as a member. For two years, Walt served as vice-president of his class, and this year is representing his class on the CORNUCOPIA staff as art editor.

Walt has many admirable possessions, but the one most admired by his fellow students is Carole, who's the beautiful blonde that's seen with Walt at various college functions. This summer Walt and Carole became engaged, and plan to be married on May 26.

After graduation, Walt will secure a job in some phase of his major. Walt is from Camden, New Jersey, but would like to live in urban eastern Pennsylvania.



Gil Finkel, a Food Industry Major, was born in 1935 in that thriving community across the river called Brooklyn, New York. However, when he was ten yearsold, his parents and he took up residence in Lakewood, New Jersey on a poultry farm. While attending Lakewood High School, Gil enjoyed studying the sciences, particularly biology and physics, and American History, but also "...spent a lot of time in the print-shop." He was in a number of clubs and was particularly interested in photography.



Here at NAC, Gil's interests include chem lab. (aside from regular assignments), Food Industry in general, and Bacteriology in particular. As many of the students at NAC know, Gil is active in the F. 1. Club, the GLEANER and the CORNUCOP1A (he is co-editor along with Paul Lepard of both these publications), Horticultural Society, and Glee Club ("...rather listen than sing.").

To quote Gil on college: "I like it. I wouldn't switch for anything. While it alone is certainly not the key to

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PAGE TEN THE GLEANER

AG. TIPS IN THE FALL

MULCHING

With the cold weather of winter "just around the corner" our attention is directed to putting our plants "to bed" for the winter.

In this section of the country with hard winters and deep frosts, some form of protection is necessary on almost all our plants. Most of our horticultural crops as asparagus, strawberries, and even tree fruits, i.e. peaches, apples, and pears, are all susceptible to heavy frosts and must be protected in one way or another.

The easiest and most common form of protection is a "mulch." A mulch is any material which is placed around the base of a plant for the purpose of affording protection. The most common mulch for horticultural crops is straw, because of its availability and cheapness.

A layer (4-8 inches deep on fruit trees; 3-5 inches on small fruits and vegetables) installed once the ground is frozen will keep the ground in a frozen state all winter and prevent heaving, which can cause serious damage to the roots.

The mulch is left on well into the early summer since it acts both as a "weed suffocator" and "water conserver". It may be plowed under in mid-summer, thus supplying the soil with added organic matter.



Melville Grey spreads mulch around the trees in his Essex County, Mass., apple orchard. Photo by Forsythe. USDA Photo

PRUNING

The pruning of our cultivated trees, both ornamental and horticultural, is a task which must be done annually if the trees are to be kept in the best possible condition. Here in the Northern States the pruning of our decidious trees may be done anytime after leaf fall, but the ideal time is from December 1 to March 1. During this period the trees are in a state of dormancy and will not suffer any ill effects.

Once a tree has been properly and intelligently pruned, the only annual attention it will require will be

the removal of dead or weak wood.

Careful attention should be given to the tools and techniques used. Pruning tools for the home would include hand shears, 16" lapping shears, a hand saw and perhaps a pair of pole-mounted shears.

Cuts should be made on a wide angle and within a quarter of an inch of a live bud. The cut should be made clean without tearing surrounding bark. All cuts over one and one-half inches in diameter should be painted with a commercial preparation.



Trees in the experimental orchard at the U.S. Horticultural Station are pruned in winter. This tree is being headed back with lopping shears. USDA Photo

FROM THE COW

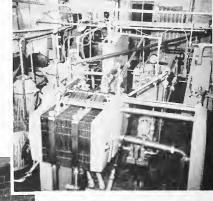
by Al Carp '58 Photos-Al Dolinsky '58

Today, our cities receive fresh milk from plants that are hundreds of miles away. This is possible due to such great technical advancements as mechanical refrigeration, rapid transportation, and the process of pasteurization.

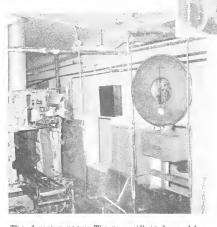
To the scientist, milk is known as the secretion of the mammary glands of the female species of an animal, but to the average consumer it is Nature's most nearly perfect food.

Today when a consumer purchases a quart of milk, he may read the words "pasteurized" and/or "homogenized" on the container. Perhaps he may wonder about the meaning of these words, or just what the process of milk is from the time it leaves the udder of the cow to the time it is put upon the breakfast table for consumption.

This past summer Alan Dolinsky and I worked for Dairymen's League Co-op Assn., Inc., in Liberty, New York. The Liberty plant is a typical country milk plant receiving milk The maze of the pasteurizing room. The milk is clarified, and then pasteurized by the HTST unit (foreground), homogenized, cooled, and stored until ready for use.



In the pasteurizing room. The raw milk is stored in the three storage tanks and is then sent to one of the two clarifiers where the foreign particles are removed.



The dumping room. The raw milk is dumped from 10 gallon cans into the scale from where samples of the milk are taken. The cans are washed, sterilized, and returned to the farmer.

from approximately 80 farmers who are members of the Co-op. The milk is sent to the plant in 10-gallon cans and is immediately inspected for spoilage or other contamination. It is then dumped, weighed, tested for butterfat content, and inspected for presence of bacteria.

From the weighing scale the milk is sent through sterile pipes to the raw milk cooler, which is located in the pasteurization room. The chilled raw milk then flows into one of three large raw milk storage tanks, each holding approximately 400 cans of milk. Now the milk is ready for the process known as pasteurization.

The milk is first cleansed of all

The Dairvlea Milk Plant in



THE GLEANER

TO YOUR TABLE

A Story of Milk Processing

The glass bottling machine in the bottling room. From the storage tanks of the pasteurizing room, the milk is piped to the bottling room.

The half-pint paper container filling machine. In the bottling room the milk may go either to the glass bottler; the half-pint paper machine; the quart paper machine; or the can filler.

creamline milk.

The warmed, homogenized raw milk now returns to the pasteurizing unit, this time entering the final heater. Here, the milk enters a "holding tube" in which the milk is held for 16 seconds at a temperature of 163°F. In dairy technology, this process is known as the hightemperature, short-time pasteurization (HTST). Proper pasteurization should destroy all pathogenic (disease-producing) bacteria. However, only a majority of these bacteria are destroyed; so, to insure that the surviving bacteris don't multiply to any appreciable rate, the milk is cooled quickly to a temperature of about 40°F and shipped into large storage vats. It should be noted that the milk labeled "pasteurized" does not go through the process of homogenization.

Eventually, the milk, whether it is "homo" or pasteurized, is sent down to the bottling room where it is

(continued on page 21)





foreign particles, such as blood and pitheal cells, by means of the Clarifier". The milk is now ready o enter the pasteurizing unit. Here, tne milk is first heated by the pasteurized milk that is already present in the pasteurizing unit. Once the raw milk is heated, it flows to the homogenizer. This machine, by employing enormous amounts of pressure, forces the milk through small openings, and the fat droplets in the milk are consequently reduced in size, If homogenization is done properly, the fat droplets remain uniformly distributed throughout the milk. This milk is now easier to digest and is better for cooking than



Onto the "runs." After packaging, the milk goes into the cooler from where it goes on "runs" to the delivery trucks.

SPORTLITES

by Al Delitzscher '58



The Aggles and Wilson College clash head on prior to the dramatic climax in which the Aggles came from behind to win 13-12.

"Aggie Football of 1956"

The first game played by the Aggies new 1956 football team, under the expert coaching of former Eagles star Pete Pihos, and staff, turned out to be a gruelling win of 27-7 for Montclair State Teachers College.

A crowd of 3,000 watched the Aggies out-first down their opponents 14-4 but two interceptions and a bad pass gave Montclair a large enough lead to win,

The game, played at War Memorial Field, was the first night college football game to be played in Bucks County.

Touchdowns in the game were made by Charlie Richter, Pete Meeker and Allen Ralston for Montclair and Sid Blair for the Aggies. The extra points were made by Ralston and Buono for Montclair and Wayne Hoffner for the Aggies.

The Aggies, playing their second game of the season on Alumni Field, came through with an exciting 13-12 win over Wilson Teachers College.

Wilson took the lead early in the game with two touchdowns but Aggie blocking by Bernie Bunn and Joe Overdvest kept Wilson from completing the kicks.

At the end of the third quarter



the game looked hopeless for the Aggies, but with only five minutes left to play in the game the Aggies freshman fullback Emory Markovic went over for the touchdown. The conversion attempt by Wayne Hoffner was blocked.

With only a minute left to play the Aggies picked up yardage quickly when Rush made a series of completed passes to Joe Faline and Bob Woodcliff. Rush then threw a pass to Markovic who picked up some heavy blocking to score. The game reached an exciting climax as Wayne Hoffner completed the kick to put the Aggies ahead by one point.





In the closing minutes of the Aggie-Wilson College game Wayne Hoffner converts the extra point to win the game for the Aggies.

NATIONAL FARM AND HOME HOUR

by Frank Wojtowicz '58

One of the outstanding agricultural programs broadcast over the radio airwaves is the National Farm and Home Hour. This weekly Saturday program over the facilities of NBC is, as the title describes, "A Service to Agriculture." Each weekly show is as colorful as the history of the program.

The year was 1932; in Chicago as in New York, the bread lines of the depression era were stretching, price of farm as well as manufactured goods were at an alarming low, men in finance were receiving their share of tragedy as a result of the depression; in general the country was in a precarious situation, Gloom

Quite surprised would be a radio listener in this year to hear a pleasant sounding voice begin the program with a hearty: "lt's a beautiful day in

was evident everywhere.



Everett Mitchell, emcee of the program.

Chicago! It's a great day to be alive and 1 hope it's even more beautiful wherever you are. "Such was the way in which the program's MC, Everett Mitchell, began the National Farm and Home Hour. His effort to bring a little cheerfulness into life, reflects Mitchell's easy-going and friendly personality. Ever since that troubled time back in the 30's this slogan has



Homesteaders Orchestra conducted by Whitey Berguest.

been used, come rain or shine.

The primary purpose of the program as defined some twenty-eight years ago, was to establish a central meeting place between the great agrarian population of our country and the city population. The meeting would take place through the medium of radio, which was coming into its own at that time. The purpose was accomplished. The presentation of market, crop, weather, and soil conservation reports helped the farmer to understand how better to run his business, and the city dweller to know the "ways of the land." Many a city wife enjoyed the home economic features that were presented on the program.

Sprinkled throughout each program would be interviews of special guests, staff members, and anyone of importance that might be visiting Chicago. The Homesteaders, a five-piece orchestra under the direction of Harry Kogen, supplied the lively music for the show. In essence, the program was designed to bring agricultural fact and fun into every broadcast and thus to the radio listeners of these United States.

As time went by, and the current of change swept over most things, the National Farm and Home Hour grew from the pioneering program of the

sputtering-crystal tube days into the modern program known as a "Service to Agriculture."

Using the USDA as an invaluable source of farm fact, the program has contributed to the knowledge of the farmer and city dweller in almost all phases of agriculture. Periodically, the voice of Secretary of Agriculture, Ezra Benson has been heard over the airwaves of the program. "We now take you to Washington..." With these words Everett Mitchell introduces "USDA Headlines", presented by Ken Gapen. Here in a relatively short time a farmer can hear the past week's agricultural news presented in an intelligent and enjoyable way.

But all is not business with Everett and his show. Mingled throughout the Program are selected musical pieces played as only Whitey Berquist and his Homesteaders can play them. The Farm and Home Hour Quartet supply the vocal music.

Throughout its many years of broadcasting, the National Farm and Home Hour has achieved international coverage of agricultural events. Mexico, India, or Korea; these are just a few of the countries that have been visited by the roving

(continued on page 21)

HEMLOCKS

by Jom Dall '58

Of all our native forest trees, none is so dear to so many of us, and for such varied reasons, as is Pennsylvania's State Tree - Eastern Hemlock (Tsuga canadensis). Throughout the Northeast in recent years, more and more hemlocks have been planted.

Before extolling the virtues of this tree, let me remind you of two of its weaknesses. If we keep these in mind, we will never have cause to be disappointed with the hemlock, This species should be planted on soils which can supply abundant and constant moisture. Again, it should not be used in extensive roadside plantings placed so close to the highways that it will add to the hazards of winter driving by collecting snow and ice which melt reluctantly under its shade.

There is no more beautiful conifer than the hemlock. It is stately with none of the stiffness of the other more formal evergreens. Nor is this beauty restricted to specimens of any age class. The loveliness of the juvenile seedling persists in the mature tree. Regardless of age, the slender, irregularly-whorled branched droop with graceful feathery foliage, composed of half-inch needles that are probably the shortest, and darkest in color of all ever-

green needles. (It is by these characters that the tree is most easily identified). Tossed by the breeze, these needles show their undersides on which two white bands of breathing pores relieve their sombre green.

Even the small, abundant cones are attractive, and somehow seem friendly, as they hang from the branches, pale green in summer, or nun-brown when the deciduious trees put on their gay and colorful autumn dress.

Except for abundant and constant soil moisture, no difficult set of cultural requirements hamper those who would grow this tree. It is not particular as to soil; it will grow in most any. It is tolerant of shade. It propagates readily by seed. It is not difficult to transplant. When first set out, particularly in dense shade, it may grow slowly during the first several years, but after that it grows rapidly. It is not uncommon for a specimen to grow 1 foot or more a year.

No other tree is more adaptable to the varying needs of the average home owner. When planted alone, it makes a creditable specimen tree. Clumped with other trees especially other hemlocks, it seems to love their company and becomes more

graceful and beautiful through the years. It is so well tolerant of shearing and pruning, that it may be used for hedges. Less severely cut, it is easily shaped to hide or soften many unwanted features of the garden.

Hemlock requires a minimum of labor and expenditure for maintenance. Even the ground beneath it is practically "self-policing". Against this weigh the hours of raking required by the dead leaves of trees as the sycamore or horse-chestnut! Under winter's burden of snow and sleet it bows and bends readily, and survives, unbroken, many a storm. It is extremely hardy and requires no special protection against low temperature.

Few trees are less subject to insect and fungus pest than is the hemlock. Red spider, the hemlock spanworm, and the hemlock leaf miner occasionally cause slight injury. When weakened by drought, the ornamental hemlock is sometimes attacked by the spotted hemlock borer. Hemlock scale, of which there are two kinds, though seldom encountered, is a serious pest in the restricted locations where it occurs.



SPORTS FORESIGHTS

by Walt Kendzierski '57 Jom Watson '57

Meet the coaches . . . Head football coach Pete Pihos, new grid mentor of the Aggies and former all pro end for the Philadelphia Eagles. He leads the Aggie eleven through the '56 season . . . assistant coaches are Ted Gellmen, formerly of the professional Pittsburgh Steelers and presently head basketball coach . . . Louis King, line coach, formerly of the University of South Dakota and in the spring head basketball mentor . . . Steve Fredo, who many of the students may remember, was in his undergraduate days starred in the Aggie lineup as one of "Saturday's Heroes." - With this fine coaching staff our hats are off to a winning season. - Missing from this year's squad are Skip Thomson, leading ground gainer, scorer, and field general who in 1955 received the honor of being mentioned on the Pennsylvania State All Star Team.

Also lost through graduation are N. A. C.'s immortal on the gridiron, Ronnie Stammel; first 12 letterman in the history of the college. – Returning lettermen for the '56 season include Sr. backs Jack Holzolpel, Sid Blair, and Joe Carstens; and all around player, Junior Bill Scott. – Soph. Bob Rush is running out of the quarterback slot, he has had experience last season as Thomson's understudy and will call the plays.

Senior linemen include lettermen Winkie Loesh, earlier injured in the Haverford College scrimmage, Bill Plenge, and Wayne Hoffner, Junior lettermen include lineman of the year Bernie Bunn, Joe Overdevest, Merck McGlouglin, and rugged Don Grimm. Back for the Soph. season include end Joe Faline and break away runner Bob Strum. – Outstanding Frosh prospects include end Bob Woodruff, and pile driving Emery Markavic. –

Aggie attack this season features a tight """ formation with precision and zestful blocking and tackling; they have added a "frost break" that provides an added dimension of effectiveness. - On the positive side the Aggies have more depth at most positions than they had last year. This squad reported for practice in excellent condition. We hope this indicates they will maintain the morale and hustle which made it possible for them to be a good team last year.

We recognize that our opponents will be stronger this fall and will have an even greater incentive to defeat us. To win this fall we need the same great efforts. However, it is a fact in all athletic competition that few players try as hard to remain on top as they do to become champions.

See you when we see sports before our eyes.

SPORTS SCHEDULE VARSITY BASKETBALL

1956 - 57

Dec. 1 Ursinus College

Away 8:30 P.M.

*Dec. 6 Rutgers College of S. Jersey

*Dec. 11 Temple College of Pharmacy

Away 8:00 P.M. Dec. 13 Newark State Teachers College

(C.B.H.S.) 8:00 P.M. *Dec. 18 Philadelphia Textile Institute

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Away 8:00 P.M.

Jan. 5 Susquehanna University Away 8:00 P.M.

Jan. 8 Philadelphia College of Pharmacy Away 8:00 P.M.

*Jan. 10 Glassboro State Teachers College

*Jan. 12 Rutgers University of S. Jersey

Away 8:00 P.M. Jan. 22 Newark State Teachers College

Away 8:30 P.M. *Jan. 31 Philadelphia TextileInsti-

(C.B.H.S.) 8:00 P.M.

Feb. 5 Jersey City State Teachers College Away 8:00 P.M.

*Feb. 7 Philadelphia College of Pharmacy

(C.B.H.S.) 8:00 P.M. Feb. 11 Kutztown State Teachers College

Away 8:00 P.M. *Feb. 14 Temple College of Pharmacy

(C.B.H.S.) 8:00 P.M. *Feb. 16 King's College (N.Y.) Away 8:00 P.M.

Feb. 18 Cheyney State Teachers College

Away 8:00 P.M. Feb. 21 Jersey City State Teachers College

(C.B.H.S.) 8:00 P.M. *Feb. 26 Glassboro State Teachers College

Away 8:00 P.M.

Feb. 28 Haverford College

(C.B.H.S.) 8:00 P.M. Mar. 1 Cheyney State Teachers College

Home 8:00 P.M.

*Mar. 7 Kings College (N.Y.) (C.B.H.S.) 8:00 P.M.

*Delaware Valley Basketball Conference Game

(C.B.H.S.) - Central Bucks High School, Doylestown, Pa.

Home - Pennsylvania National Guard Armory, Doylestown, Pa.

HIJACKED



His wife lay on her deathbed. She pleaded, "John, I want you to promise me that you'll ride in the same car with my mother at my funeral."

He sighed, "Okay, but it's going to ruin my whole day."

"Before we begin the examination, are there any questions?"

"Ya," came a voice from the back of the room. "What's the name of the course?"

"Why the black shroud on your roommate's bed? Did he die?"

"Black shroud, Hell - that's his sheet,"

Then there was the fellow that had a hobby of collecting stone and putting them in the bathroom,

He had rocks in his head.

The Midshipman was gazing into the crater of the famous Italian volcano, "It sure looks like hell, doesn't it?"

"Oh," retorted his guide, "You Americans have been everywhere!"

A bopster was practicing on his saxophone late at night when the landlord came in. "Do you know there's a little old lady sick upstairs?" asked the landlord.

"No," answered the bopster, "Hum a little of it."

Doctor: "Is your cold any better?"

. Patient: "Naw"

Doctor: "Did you drink the orange juice after the hot bath?"

Patient: "Naw. After drinking the hot bath I couldn't get the orange juice down."

"May I have this dance?"

"I'm sorry, but I never dance with a child," she said with an amused smile,

"Oh, a thousand pardons," he said. "I didn't know your condition."

Then there is the story of the college professor who had left his umbrella at a hotel. When he came back to the room and listened outside the transom, he found that a newlywed couple had taken the room. He heard, "Whose little mouth is that?" Then there was whispering. Then he heard, "And whose little hands are those?" Whispering again. Then he knocked on the door. "When you come to an umbrella," he said, "it's mine."

"Too bad, pal, my hen got loose and scratched up your lawn."

"That's O.K. pal, my dog ate your hen."

"Great! I just ran over your dog."

Judge: "Are you sure this man was drunk?"

Cop: "Well he was carrying a manhole cover and said he was taking it home to play on his phonograph."

When the newlyweds got on the train the groom tipped the porter and whispered, "Don't tell anybody we were just married."

The next day the couple were very embarrassed to find everybody staring at them, and finally asked the porter about it. "No, suh," came the emphatic reply. "Everytime they asked me if you was just married, I'd tell 'em no indeed, you was just good friends."

"So you bought a home in the country?"

"Yes, five rooms and a path."

H U M O R

Just because my eyes are red is no sign I'm drunk. For all you know, I may be a white rabbit.

"What kind of guy is your room-mate?"

"Well, last night he stubbed his toe on a chair and said, "Oh, the perversity of inanimate objects."

"Rastus, what make dis bump on vo' haid?"

"I tell you Liza, I'se got dandruff an dey tol me to put toilet water on ma heaid an de fust thing you know dat ol seat flap right down on me, yas, suh!"

Girl: "l want some real kiss proof lipstick,"

Clerk: "Try this, It's a cross between an onion and bichloride of mercury."

First girl: "I don't like your boy friend."

Second girl: "Why not?"

First girl: "He whistles dirty songs."

Holy Smoke: When a cannibal cooks a missionary.

Marriage is much like a prize fight - the preliminaries are usually better than the main event.

An old timer used to say: It's heck to lose your gum in a chicken house.

He was seated in the parlor, And said unto the light, Either you or I old fellow, Will be turned down tonight.

You can lead a girl to water but she'll only use it for a chaser.

If you really want to kisser,
And want to kisser very nice,
Try it once or twice and misser,

Then kisser on the kisser twice.

Said farmer one to farmer two: "My best cow died of Bang's disease. Some hunter shot her."

First Englishman: "Sorry to hear that you buried your wife, old man."

Second Englishman: "Had to, dead you know."

Census taker (to woman at the door): "How many in your family?"

Woman: "Five. Me, the old man, the kid, the cow and the cat."

Census taker: "And the politics of your family?"

Woman: "Mixed. I'm a Republican, the old man's a Democrat, the kid's wet, the cow's dry and the cat's a free trader."

Doctor: You've been working too hard - what you need is recreation. If I were you, I'd go home and take my wife out to a movie.

Patient: Swell, doc, thanks a lot. By the way, what's your address?

Father was relaxing in his easy chair after a hard day at the office. Little junior was bedeviling him with endless questions.

"Daddy, whataya do down at the office?"

"Nothing" grumbled his father. Junior thought for a moment and then asked, "How d'ya' know when you're through?"

Have you heard the one about the cannibal's daughter? She liked boys best when they were stewed.

Goldstein: Some women don't think of men all the time.

Marini: Yes, but when they do think, they think of men.

Professor: Why aren't you taking notes?

Student: Don't have to, I've got my grandfather's.

Last week the GLEANER interviewed one of our students who is working in town as a taxi driver. Here is what he had to say: "lt's not the work l enjoy, it's the people I run into."

As he felt his way around the lamp post, the overloaded senior muttered, "sno use, I'm walled in."

Report on the poultry market: Broilers have gone up two cents but pigeons still continue to drop a little.





(continued from page 6)

APIS MELLIFERIA

tor can tell whether or not a colony is diseased with foulbrood. American foulbrood is one brood disease that if it is not controlled, it will cause serious losses to the beekeeper. It first reveals itself in the advanced stages of brood growth, after the cells are capped. A healthy brood cell will have cappings that are convex in structure. The broad of a diseased colony will have cappings that are sunken rather than convex and can have pin hole-like punctures in the cappings. If this type of sunken and punctured characteristics are noticed, the capping is removed by means of a match or a toothpick. The inside of the cell is now noticed. In a healthy brood cell one will see the white larvae that can be easily removed from the cell with a toothpick. The characteristics of a diseased brood will be noted by the inside being brown rather than white. The dead larvae will not be easily removed, but it will have a tendency to stick to the sides of the cell wall and pull out in strings. A diseased brood will have a characteristic foul odor that can be described as glue-like.

European foulbrood attacks the younger stages of the brood. Diseased larvae can be seen in various positions in the cells and they do not stick to the cell walls as with American foulbrood. The affected larvae vary in color from light straw to brown and the glue-like odor is not present. The disease is usually found among inferior stock like the common black bee. A greater percentage of Italian stock are immune to this disease.

As a bee inspector, you are continually on the alert for any of these disease symptoms. If you happen to inspect a colony that is diseased, a notice is given to the owner telling him of the presence of a disease. This disease notice also states that

the diseased colonies must be destroyed by burning within a fourteen day period as required by law. The bee inspector will assist with the burning if it is made on the day of the inspection. If the bees are not destroyed on the day of the inspection, the beekeeper must destroy them himself during the fourteen day period as detailed on the disease notice. At the end of the fourteen day period, the bee inspector will check to see if the diseased colonies have been destroyed.

A colony infested with disease is destroyed by burning in the following manner. A tablespoon of a calcium cyanide dust is placed at the entrance of the colony. This poison will kill all the bees of the colony in a period of about three minutes. While the gas from the dust is killing the bees, a two foot hole is dug. The diameter of the hole depends on the quantity of colonies to be destroyed. The diseased colony is taken apart and burned in the prepared hole – this includes honey, dead bees, and supers.

It is very important for a hole to be used to burn the colony. The burning honey will run to the bottom of the hole and be covered after burning. The reason for the importance is that honey is capable of spreading disease. The only part of the colony that is not destroyed is the hive boxes, but they must be sterilized before they may be used again. The burned debris must be covered with soil so that no robbing by other bees can take place.

Many beekeepers cannot understand why the honey of a diseased colony cannot be saved and used by the owner, since the disease will not harm the honey as far as human consumption is concerned, It must be explained that such a simple thing as a child throwing down a piece of honey bread would cause the spread of disease, and all the work of burning the colonies would have been in vain.

As far as I'm concerned, opening up a colony and hauling it requires more nerve than experience. The best time to open up a hive is on a

warm day from about 9:00 in the morning to about 4:00 in the afternoon. A beekeeper should always be equipped with a veil and a smoker. It is best to close the bottom of one's pants by putting them inside high shoes and clipping them with bicycle clips. A hive tool is also essential to the beekeeper and the inspector.

The smoker is used to calm the bees while one is working them, and should be used with care. The use of a wrong type of smoker fuel will excite the guard bees and irritate them to the point where stinging of the handler will take place. Many people use oily rags as a smoker fuel. This is one of the worst things to use. It will definitely irritate the bees and cause stinging to take place more readily. A good fuel is rotten apple or maple wood.

When preparing to open a hive, three or four puffs of smoke are blown across the entrance of the hive, and then an equal amount is blown under the inner cover. (While working bees, I prefer to hold the smoker between my knees so l can use it quickly if necessary.) An occasional puff of smoke is blown across the frames as the beekeeper works the colony. A small amount of smoke is also blown over the frames before each frame is lifted or replaced. Care must be taken to see that the smoke reaches all parts of the exposed frames so that all bees will be disorganized. The bees in any area that are not reached with smoke will become organized and dart from the frame and start stinging, If the bees show any activity on top of the frames, they should be smoked at once.

Getting stung is a thing that the inspector must get used to. Some people cannot work with bees since they are allergic to the sting, and one sting has been known to kill those possessing an allergy to them. As for myself, I can usually tell by a glance at the condition of the apiary as to whether the bees will be easily handled. In the apiary mentioned previously where the colonies were located near a stream in a densely wooded area, the bees were very irritable and hard to handle. The colonies were placed close together so that the whole apiary was alarmed

(continued on page 21)

APIS MELLIFERIA

and the guard bees became irritated and handling them at this time caused me to be stung several times.

On the other hand, if you see an apiary located in a protected area that receives a maximum amount of sunshine, and one that the colonies are not placed directly beside each other in a location of good drainage, you will find that the bees of the colony will not excite as easily, thus resulting in a fewer or no stings, It must be remembered that a bee will only sting to protect itself! If a beekeeper complains about continually getting stung, you may suggest the possibility of a poor location.

The sting of a bee is barbed and is torn when the bee is brushed away after stinging the enemy. The sting continue to pump poison into the wound for sometime after it is inserted, even though torn from the bee. If the sting is quickly scraped (not pulled) from the flesh, only a small amount of the poison will enter the wound and the after effects will be much less severe.

Hundreds of volumes have been written about the organized and interesting life of the bee, Why not look into their life a little deeper?

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HONOR AGGIES

success, it's not a stumbling block on that road, With proper education and a certain amount of determinaus the education; the determination part is up to us."

For a young man, Gil has developed an exceptionally fine philosophy. "The most important thing I Know is that all humans are people, and should be treated that way. I'm interested in most all things, for a short time at least. I'm fascinated by life and what makes things live. I think that the ultimate purpose of man on earth is to create and/or sustain life."

Gil hopes to attend graduate school and study bacteriology, after which he aims to take the "highest paying job and make a success of it."

Gil's success should be assured, since he shows plenty of the aforementioned determination in his studies and school activities. This, coupled with the vivid personality and sense of humor that are known to his friends, always has, and always will make Gil Finkel a great asset to NAC.

(continue from page 13)

FROM THE COW

put into containers.

The Liberty plant puts milk into 1) glass containers, 2) quart paper containers, 3) half-pint paper containers, and 4) 20 and 40 quart milk cans. Incidentally, all equipment that is used for bottling, including the milk glass and can holders, are scrubbed, rinsed, and sterilized daily. Once the milk is bottled, or canned, it is immediately sent to the "cooler", which is simply a refrigeration room kept at a temperature of 40°F. Daily, delivery trucks come to the cooler to load up for shipment to local dairy retail stores, hospitals, super markets, and grocery stores.

In the summertime the supply of farmer's milk is not adequate to supply the increased volume of trade in the Liberty resort area, therefore three or four tank trucks are received daily to fill the demand. From

the tanker the milk is processed in the same manner as that received from the local farms.

In addition to homogenized milk and cream-line milk, the Liberty plant bottles chocolate drink, orange drink, and heavy and light cream. In general most dairy plants follow the same procedure.

Technical advances and changes are still taking place in the dairy industry. We now have "Vitamin D" milk prepared by irradiation, not to mention the numerous by-products produced from milk. Perhaps some day there will be plastic containers to take the place of glass and paper containers now in use. Technically trained men and women are "on the job" constantly trying to improve Nature's most "complete food", for you, the consumer.

(continued from page 15)

NAT'L FARM AND HOME HOUR

staff of the program. One of the highlights of each weekly program is some current event that holds an agricultural interest, such as the National 4-H Club Camp meeting, or the visit of some foreign agricultural dignitary.

The contributions made to American agriculture by this program are enormous. Among other things, it has furthered the interests of farm safety; helped to build the Future Farmers of America; advanced the causes of conservation in the United States; and spread the word of forest fire prevention. But I believe the most important contribution of Everett and the show has been in behalf of American Youth. Their interest in youth has lead to the development of fine young men and women of our farms.

The Allis Chalmers manufacturing Company, makers of fine agricultural equipment, can be justly proud of its sponsorship of the National Farm and Home Hour, "A Service to Agriculture," continues to be

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(continued from page 21)

NAT'L FARM AND HOME HOUR

"recognized as the most serviceminded of all commercially-sponsored farm programs." Grateful is the farmer, for he stands to gain the most from "It's a beautiful day in Chicago...

Quoted from the 25th anniversary publication of this program. Thanks to NBC and Everett Mitchell for allowing The Gleaner to use information appearing there. The Gleaner
wishes to
congratulate
the 1956
Football Team

THE EDITORS

UNDER NEW MANAGEMENT



POET'S CORNER

STUMPED

BY Lenny Goldertyer

Of course I think; I think I'm pretty smart.

I guess most of us do. But there's a lot of questions 1 don't know the answers to!

For instance, how come birds have bills.

And never have to pay them? How come people don't ever use The fishes' scales to weigh them?

How come trees have trunks, But never go away? How come a watch stays where it is, And yet, it runs all the time?

If coffee's made of berries, Why do people say it's ground? And how is it that corn has ears, And never hears a sound?

And just what does a monkey unlock for goodness sakes? And since it's always night that falls, How come it's day that breaks?

Why is it windows all have panes, But no one calls the Doc? And if twelve inches makes a foot, Why don't they wear a sock?

There once was a lady from Niger, Who decided to ride on a Ttiger. The tiger came back; With the lady inside, And a smile on the face of the tiger.

HE WHO KNOWS

He who knows not, and knows not that he knows not, is a fool, shun him; He who knows not, and knows that he knows not, is a child, teach him.

He who knows, and knows not that he knows, is asleep, wake him.

He who knows, and knows that he knows, is wise, follow him:

Persian Proverb

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